

RATGAUZ, L.G., kand.med.nauk

Conference on the problem of acute radiation sickness. Vest.  
AMN SSSR 15 no.2:89-94 '60. (MIRA 14:6)  
(RADIATION SICKNESS--CONGRESSES)

RATGAUZ, L.G.; DANILOV, A.I.

Work of the division of hygiene, microbiology and epidemiology of  
the Academy of Medical Sciences of the U.S.S.R. (February 1960 -  
February 1961). Vest. AMN SSSR 16 no.7:72-81 '61. (MIRA 14:7)  
(PUBLIC HEALTH) (MICROBIOLOGY) (EPIDEMIOLOGY)

RATGAUZ, L.G.; SIBIRYAKOV, M.A.

Fifteenth session of the Academy of Medical Sciences of the  
USSR. Voen.-med.zhur. no.9:90-93 S '61. (MIRA 15:10)  
(MEDICINE)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001444

POROKOV, N. A.; RATGAUZ, N. Ya.

Extraction of gravel and grading of sand at the "Solonichki"  
quarry. Biul. tekhn. inform. Inst. "Proektgidromekh." no.1:  
(MIRA 16:1)  
47-52 '62.

(Gornaya Shoriya—Sand and gravel plants)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0014443

Ratgauz, V. G.

USSR / Virology. Human and Animal Viruses. Rabies Virus. E-3

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 81303

Authors : Selimov, M. A.; Durasova, M. N.; Rogozina, Ye.  
N.: Ratgauz, V. G.; Mayorova, L. I.

Inst : Moscow Scientific Research Institute of Vaccines  
and Sera.

Title : Procurement and Fractionation of Immune Antirabic  
Serum.

Orig Pub : Tr. Mosk. n.-i. in-ta vaktsin i syvorotok, 1957,  
9, 226-235

Abstract : No abstract given.

Card 1/1

USSR / Virology. Human and Animal Viruses. Rabies Virus.

E-3

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 81279

Authors : Selimov, M. A.; Durasova, M. N.; Rogozina, Ye. N.; Ratgauz,  
V. G.; Mayorova, L. I.

Inst : Not given

Title : Antirabic Gamma-Globulin. Report 1. Procurement and Frac-  
tionation of an Immune Antirabic Serum.

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No. 7,  
28-32.

Abstract : In order to obtain serum, horses were used which were immuni-  
zed by live fixated virus. For fractionation, fractional pre-  
cipitation by ammonium sulfate and alcoholic precipitation  
proved useful. The latter provided the obtaining of a more  
standard preparation.

Card 1/1

SSIAU, N.N., DURAKOV, V.G., KARAEV, Ye.N.; RATCHOV, V.G., MATEYEV, I.I.

Antirabies gamma globulin. Report No.1. Obtaining and fractionating  
immune antirabies serum. Opis mikrobiol. soed. i imun. 28, no 7, 13-12  
(MIRA 19-10) JI '57.

1. Iz Moskovskogo instituta vyschih i srednich mestniccheskikh  
imun. i antitoxin. i gamma serum. prep. & fractionation (50%)

KUZNETSOV, Pavel Ivanovich, kand. ist. nauk; RATGAUZER, Mark Yakovlevich,  
kand. ist. nauk; LAVRIKOV, Yu.A., kand. ekon. nauk, nauchnyy red.;  
UDAL'TSOV, O.A., red.; GURDZHIYEVA, A.M., tekhn. red.

[Role of the intelligentsia in the struggle for technological  
progres; some forms of cooperation between science and industry]  
Rol' intelligentsii v bor'be za tekhnicheskii progress; formy so-  
druzhestva nauki i proizvodstva. Leningrad, Ob-vo po raspr. polit.  
i nauchn. znanii RSFSR, 1961. 64 p. (MIRA 15:2)  
(Technology) (Research, Industrial)

RATGON, M.G., Inst.

Milling in carbon dioxide at the White Russian Automobile Plant.  
Svar. proizv. no.10:26427 O '63. (MIRA 16:11)

RATCON, M.G., inzh.

Modernizing the ASP-1m automatic gas-cutting machine. Svar. proizv.  
no.4:39-40 Ap '61. (MIRA 14:3)

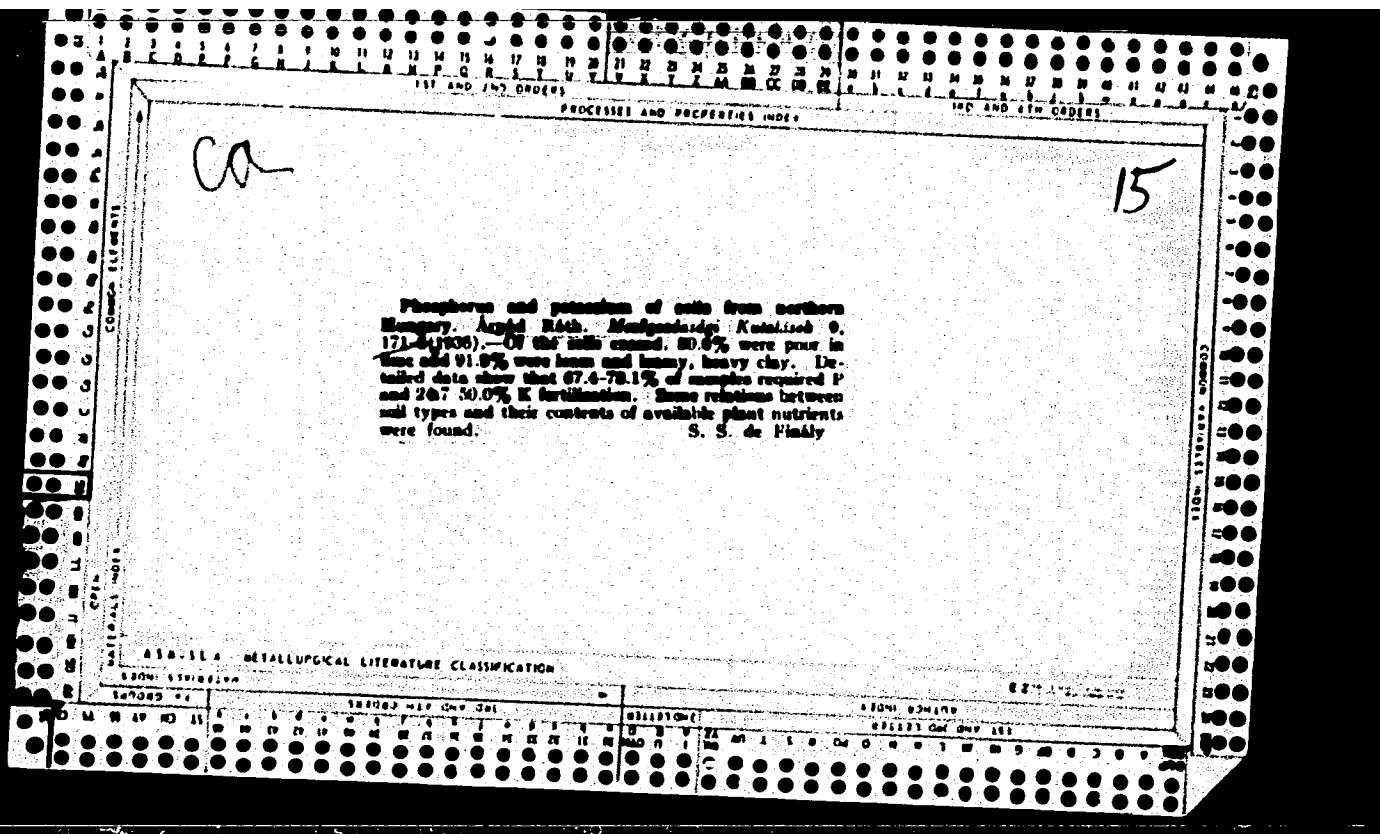
1. Ryazanskiv stankostroitel'nyy zavod,  
(Gas welding and cutting—Equipment and supplies)

(P)

14

Significance of determination of hydrogen-ion concentration in estimating the lime condition of the soils between the Danube and the Theiss. A. RATH, Menzinger und Kastenholz, 1, 121-6(1928). The H-ion content is not always a trustworthy indication of lime condition or requirement.

B.C.A.



RATH-H

✓ Fiber tendering in discharge printing. H. Rath and J. Rau. *Melland Textilber.* 35, 1125-30 (1954). Tendering of the fibers sometimes occurs in discharge printing if water reacts with hydrosulfite contg. prints at elevated temps. before or after steaming. This is oxidative. It can be accompanied by a hydrolytic degradation in the case of neutral discharging. This decompn. can be prevented by addn. of antioxidants in presence of alkali to neutralize the newly formed acid. Fast operation in cool airfree surroundings helps prevent tendering. E. Hirschhorn

RATH, J.

✓ 6391. THE TEMPERATURE RATING OF HIGH-VOLTAGE  
RESISTORS IN IMPULSE GENERATORS. V.Roth and J.Rath  
Elektrotech. Obzor, Vol. 45, No. 6, 287-93 (1966). In Czech.

In order to avoid destructive overloading of impulse-generator resistors, the author, as a compromise, suggests designing these resistors for an equivalent continuous impulse operation. Approximate expressions for the effective values of current are tabulated in terms of the parameter of the components for four basic impulse-generator connections. These connections have equal wave shapes. Stray capacitances and arc resistances are neglected. The study is extended to include the Marx cascade connection. 3 examples and 6 references.

E.Kraddiyi

4

Reu  
aoz

RATH, J.

Dimensions of high-voltage resistors in impulse generators  
with reference to temperature rises. p. 287. ELEKTROTECHNICKY  
OBZOR. (Ministerstvo strojirenstvi a Ministerstvo paliv a  
energetiky) Praha.  
Vol. 45, no. 6, June 1956.

SOURCES: EEAL LC Vol. 5, No. 10 Oct. 1956

IABADY, Antal, Dr.; RATH, Magdolna, asszisztenanc

Immunobiological effects of BCG vaccination in infectious tuberculous environment. Orv. hetil. 100 no.4:148-152 25 Jan 59.

l. A Gyonki Jarasi Tanacs Simontornya Tbc. Beteggondozó Intezetenek  
(vezeto-foorvos: Ihabdy Antal dr.) kozlemenye.

(BCG VACCINATION

value in infect. tuberc. environment (Hun.))

1. 4  
SLABOCHOVA, Z; MAŠEK, J., MUDr. Dr. Sc.; PLACER, Z;  
RATH, R.

Czechoslovakia

Research Institute for Human Nutrition -- Prague  
(Ustav pro výzkum výživy lidu -- Praha);  
Director: M. NASEK, Docent MUDr Dr. Sc.

Bratislava, Bratislavské lekárske listy, No 7,  
1962, pp 402-407

"Contribution to the Study of the Metabolism  
of the Obese."

(4)

DUB, Ota; RATHOVA, Eva; RATH, Ratmir

Report of 800 patients treated with chloramphenicol without serious complications. Cas. lek. cesk. 97 no.38:1197-1202 19 Sept 58.

1. I. interni oddeleni KUNZ Usti n. L., primar Dr. O. Dub.  
(CHLORAMPHENICOL, ther. use  
bronchitis & other inflamm. dis., clin. statist (Cs))  
(BRONCHITES, ther.  
chloramphenicol, clin. statist. (Cs))

L 16733-00  
ACC NR: AP6005693

SOURCE CODE: C2/0079/65/007/002/0201/0203

AUTHOR: Vojtechovsky, M.; Dobersky, P.; Rath, R.

ORG: Institute of Human Nutrition, Prague

TITLE: EEG in obese patients [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Marianske Lazne from 19 to 23 October 1964.]

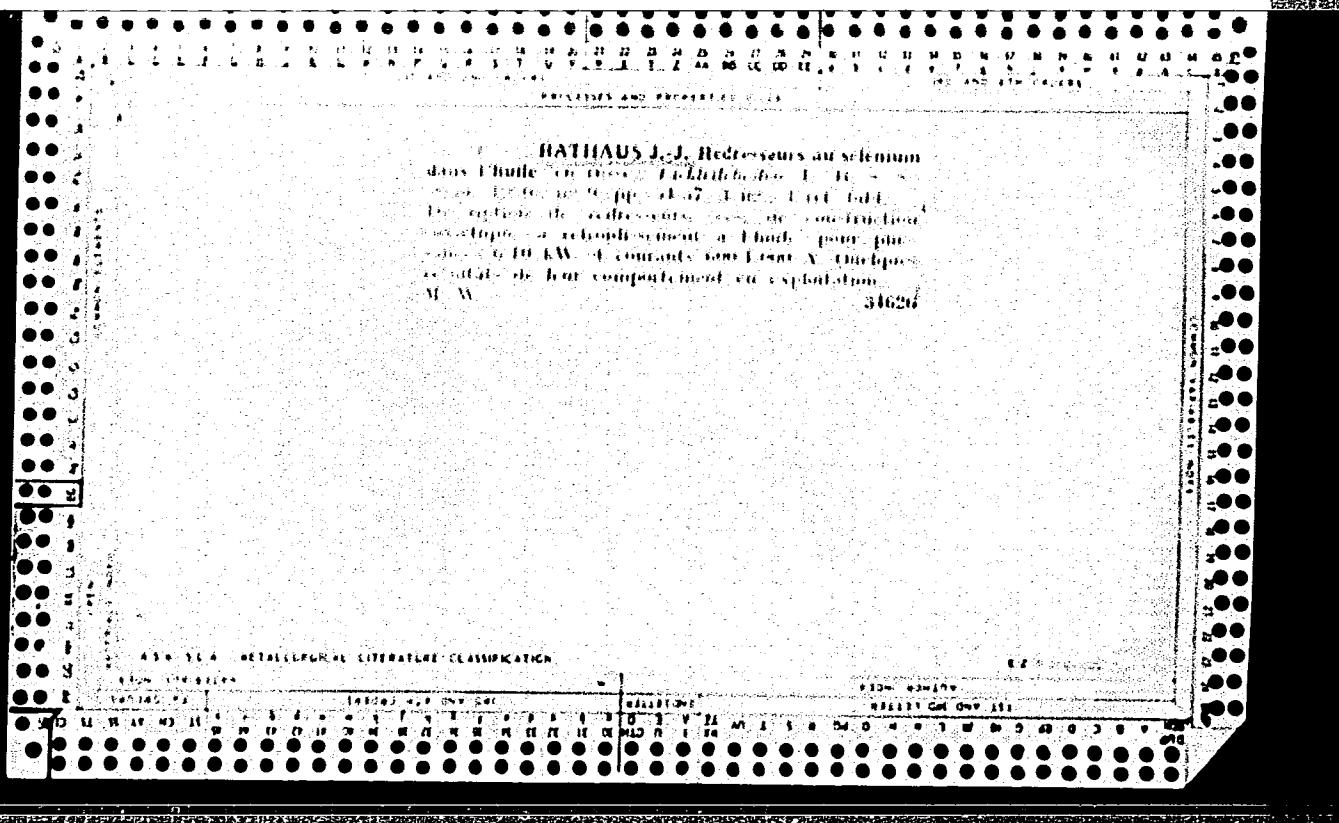
SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 201-203

TOPIC TAGS: EEG, thyroid gland, hormone, brain, man

ABSTRACT: EEG in 200 obese patients was used to assess the effect of a reducing diet. 5 minute ventilation at the start and end of the recording was used as activation. EEG at rest revealed 17% anomalies; during hyperventilation 40% of deviations from normal were found. 26% of the patients had an ideal stable alpha rhythm. 21.5% had abnormal hyperventilation reaction. These abnormalities are 3-4 times greater than standard figures for normal people. In the genesis of the abnormalities, deficiency of thyroxine in the brain plays probably an important role. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 002

Card 1/1 HW



*W.E.*  
*Hillman*

1821  
International Frequency Changer Equivalents  
I. Rutherford, Radio Link, London, 1933, Vol. 1,  
No. 50, pp. 109-111. Tables of the principal  
characteristics of the international series of mode  
hexadec., triode heptadec., heptode, pentadec.,  
converters, and octodes.

*1948*

*W.E.* *values & tolerances*

621 1948  
1919  
**Oscillation Frequency Limits for Grid-Controlled Valves.** - J. Katherer. (Radio Eng., Vienna, 1947, Vol. 23, Nov. 1947, pp. 301-305.) A general discussion of the maximum frequencies obtainable with various circuits using normal valves, with a short reference to special valves designed for ultra-high frequency operation.

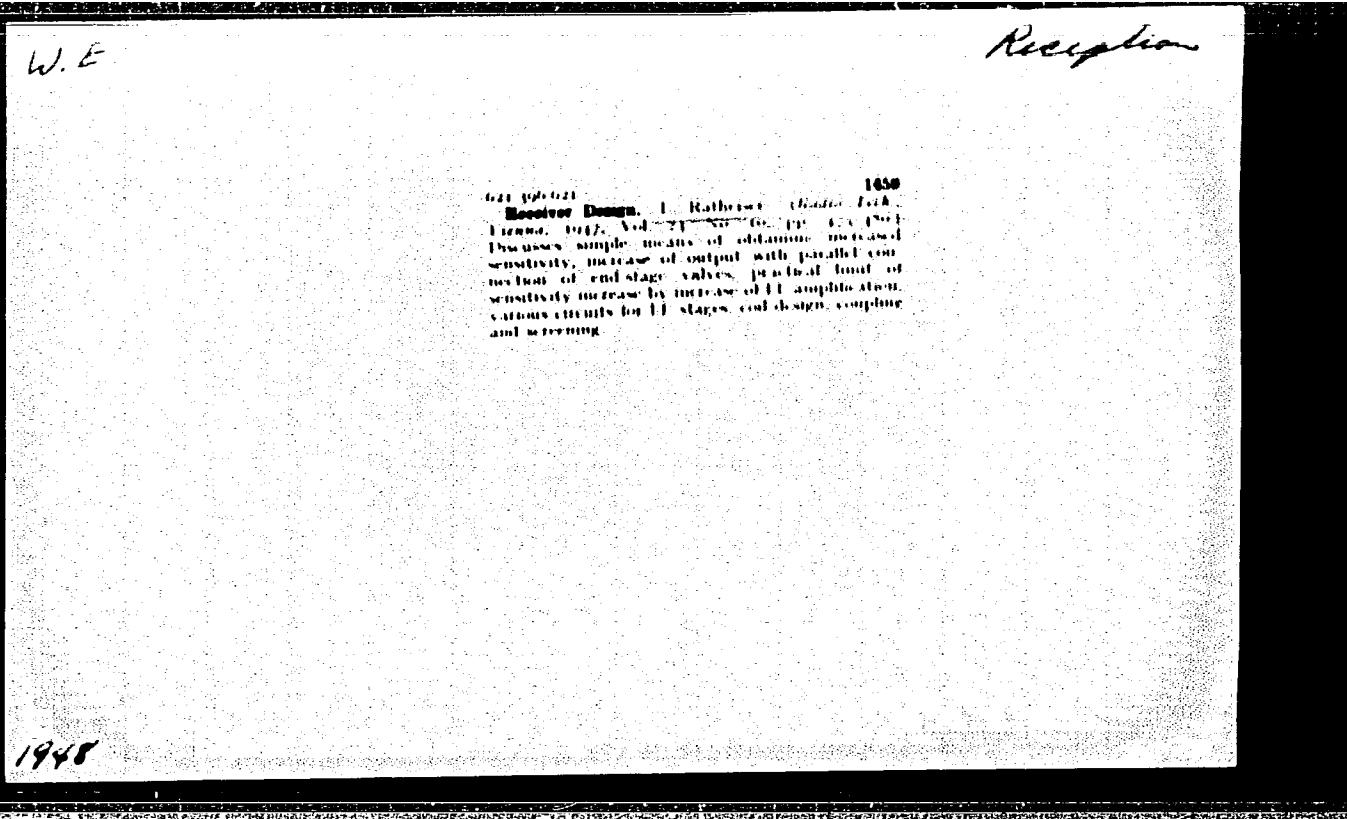
*1948*

W.E

*Notes & References*

1920  
021 195 1-614 216  
**Cathode Problems.** L. Rathbun. (*Radio Tech*)  
*Electronics*, 1937, Vol. 23, Nov. 9/6, pp. 385-388.  
Discusses briefly the theory and properties of oxide  
cathodes, and the development of special types for  
modern valves.

1948



W.C.

*Circuits & Circuit Elements*

641.16.645 8798  
**Wide-Band Amplification.** J. Rutherford (Radio  
Tech., London, May 1943, Vol. 20, No. 3, pp. 200-204)  
Discussion of (a) direct and (b) carrier-frequency amplification, with design methods for practical amplifiers and  
charts for determining the numerical values of circuit  
components.

1945

*Palmer & Zimmerman*

621.00001V112

1045

**From Transit-Time Effect to Transit-Time Valves:**  
Parts 1 & 2. L. Rutherford (Radio Engg., Liverpool,  
Aug. Sept. & Oct. 1936, Vol. 22, Nos. 3 & 4, pp.  
pp. 190-196 & 281-292). Simple explanations  
are given of transit-time effects and the interaction  
between electrons and a.c. fields. The develop-

ment of modern u.h.f. valves is traced from Bark-  
hausen-Kurz retarding field types to velocity  
modulation valves. To be continued.

*Circuits & Circuit Elements*

520.315 5.000 44-5621.300-611.0029-61 1200  
*Conductors and Circuits for U.H.P.*, I. Rutherford  
Radio Engg., London, 1947, Vol. 13, No. 106 pp.  
136-148]. An elementary discussion of current  
distribution in conductors at h.f., together with  
a description of various tank circuits.

1947

CA

9

Secondary recrystallization of face-centered nickel-iron alloys. G. W. Rathenau and J. F. H. Custers. Philips Research Report, 4, 241-60 (1949); Chem. Zentral., 1950, I, 1072-3. When a deformed metal is heated to a sufficiently high temp. for a sufficiently long period the first recrystallization takes place. When heating is continued, the structure often becomes coarser owing to a growing together of the crystals. Under certain conditions a secondary recrystallization is observed in which a few crystals, nuclei in the original fine-grained structure grow to produce a very coarse structure. Ni-Pt alloys contg. 40% Ni were used to study this phenomenon under various exptl. conditions. The processes involved are explained with the aid of numerous cuts. - M. G. M.

PETRASEK, R.; RATH, R.; MASEK, J.

On the ratio of body fat in relation to different factors.  
Rev. Czech. med. 11 no.4:251-258 '65.

1. Institute of Human Nutrition, Prague (Director: Prof.  
J. Masek, M.D., D.Sc.).

RATH, R.; PLACER, Z.; SLABOCHOVA, Z.; Technicka spoluprace: HRADILCOVA, L.;  
MUNCLINGEROVÁ, M.; Statisticka spoluprace: ZVOLANKOVÁ, K., inž.

Body water space. Part 8. Cesk. gastroent. vyz. 19 no.6:335-339  
S '65.

1. Ustav pro vyzkum vyzivy lidu v Praze (reditel prof. dr.  
J. Masek, DrSc.).

RATH, R. ( Praha-Krc, Budejovicka 800), MASEK, J.; PETRASEK, R.; Technicka  
spoluprace: MUNCLINGERVA, M.; Statisticka spoluprace:  
ZVOLANKOVA, K., inz.

Some problems in obesity and body composition. Cas. lek. Cesk.  
104 no.51:1386-1389 17 D '65.

I. Ustav pro vyzkum vyzkivy lidu v Praze (reditel prof. dr.  
J. Masek, DrSc.). Submitted January 1965.

RATH, K.; MASEK, J.; PECHARSK, R. Technicka spoluprace: MUNCLINGEROVÁ, M.

On the nature of the changes in body composition of obese  
subjects during fasting. Cas. lek. cesk. 104 no.3:84-85  
22 Ja '65

1. Ustav pro vyzkum vyzivy lidu v Praze (reditel: prof. dr.  
J. Masek, DrSc.).

VOJTECHOVSKY, M.; DOBERSKY, P.; RATH, R.

EEG in obese patients. Activ. nerv. sup. (Praha) 7 no.2:201-203  
'65.

1. Institute of Human Nutrition, Prague. 2. M. Vojtechovsky's  
address:Praha-Krc, Budejovicka 800.

RATH, R.; PETRASFK, R.; Technicka spoluprace: MUNCLINGEROVÁ, M.

Apropos of body weight standards. Ratio of body fat and its  
relation to body height in women with normal weight. I.  
Cas. lek. cesk. 103 no.43:1182-1185 23 0 '64.

1. Ustav pro vyzkum vyzivy lidu v Praze, (reditel prof. dr.  
J. Masek, DrSc.).

RATH, R.

The problems of a reference standard for metabolic processes  
under our climatic conditions. Rev. czech. med. 10 no. 2:105-112  
'64.

1. Institute of Human Nutrition, Prague; Directors Prof. J.  
Masek, M.D., D.Sc.

RATH, R.; SLABOCHOVA, Z.; PLACER, Z.

Metabolic studies in obesity. V. Effect of adrenalin in normal weight and obese subjects. Cesk. gastroent. vyz. 17 no.7:422-429 N°63

1. Ustav pro vyzkum vyzivy lidu v Praze; reditel prof. dr. J. Masek, DrSc.

SLABOCHOVA, Z.; RATH, R.; PLACER, Z.

Metabolic studies in obesity. V. Blood sugar curve after 2 glucose loads. Cesk. gastroent. vyz. 17 no.1:37-41 Ja '63.

1. Ustav pro vyzkum vyzivy lidu v Praze, reditel prof. dr.  
J. Masek, DrSc.  
(OBESITY) (GLUCOSE TOLERANCE TEST)  
(INSULIN) (AGING)

SLABOCHOVA, Z.; MASEK, J.; PLACER, Z.; RATH, R.

Contribution to metabolic studies in obese subjects. Bratisl. Lek.  
Listy 42 no.7:402-408 '62.

1. Z Ustavu pro vyzkum vyzivy lidu v Praze, reditel doc. MUDr.  
J. Masek, Dr.Sc.  
(OBESITY) (LIPID METABOLISM)

SLABOCHOVA, Z.; FATH, R.; PLACER, Z.; MASEK, J.

Effect of thyroglobulin in the treatment of obesity. Cas. Lek. Cesk. 103 no.17:458-462 Ap 24 '64.

1. Ustav pro vyzkum vyzkivy lidu, Praha (ředitel prof. dr. J. Masek, DrSc.).

PLACER, Z.; RATH, R.; SLABOHOVA, Z.; technicka spolupraca HRADILLOVA, L.

Body water space. I. Determination of extracellular fluids with the aid of rhodanide (NaSCN). Cesk. gastroent. 16 no.1:35-40 Ja '62.

1. Ustav pro vyzkum vyzkivy lidu, Praha, red. doc. MUDr. J. Masek, DrSc.  
(THIOCYANATES) (BODY FLUIDS)

RATH, R.; SLOBOCHOVA, Z.; PLACER.Z.; Technicka spoluprace: HRADILova, L.;  
MUNCLINGEROVA, M.

Body water spaces. Relation of extracellular fluid to basal  
metabolism in obese patients. Cesk. gastroent. vyz. 17 no.8:  
463-468 D'63

1. Ustav pro vyzkum vyzivy v Praze; reditel prof. dr. J. Masek,  
DrSc.

RATH, Szabolcs, dr.

Why is there a need for the 1963 industrial world census?  
Musz elst 17 no.23:4 8 N '62.

RATH, Szabolcs

"Cooperation between official statistics and marketing research" by Hans Spilker (from "Wirtschaftsdienst," no.8, 1962). Reviewed by Szabolcs Rath. Stat szemle 41 no.3: 329-330 Mr '63.

HANEMEL, GINA

Reinclusion. Czae. stomat. 18 no.5:529-533 My'65.

I. Z Zakladu Ortodoncji Slaskiej Akademii Medycznej w Zabrze  
(Kierownik: doc. dr. E. Libiszewska-Jaruzelska).

GUYAYEV, V.N.; RATHER, A.V.

Equipment for testing long-period strength of metals in working  
media. Zav.lab. 24 no.2:226-228 '58. (MIRA 11:3)

1. Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut  
im. F.E. Dzerzhinskogo.  
(Metals--Testing) (Testing machines)

Rathling, F.

"Recent reinforced concrete mining supports. III. Technology of prestressed concrete constructions." (To be contd.), p. 277.  
(Bányászati Lapok. Vol. 3. no. 6, June 1953, Budapest.)

30. Monthly List of East European Acquisitions, Vol. 2, No. 9, Library of Congress, September 1953, Unclassified.

Rathling, F.

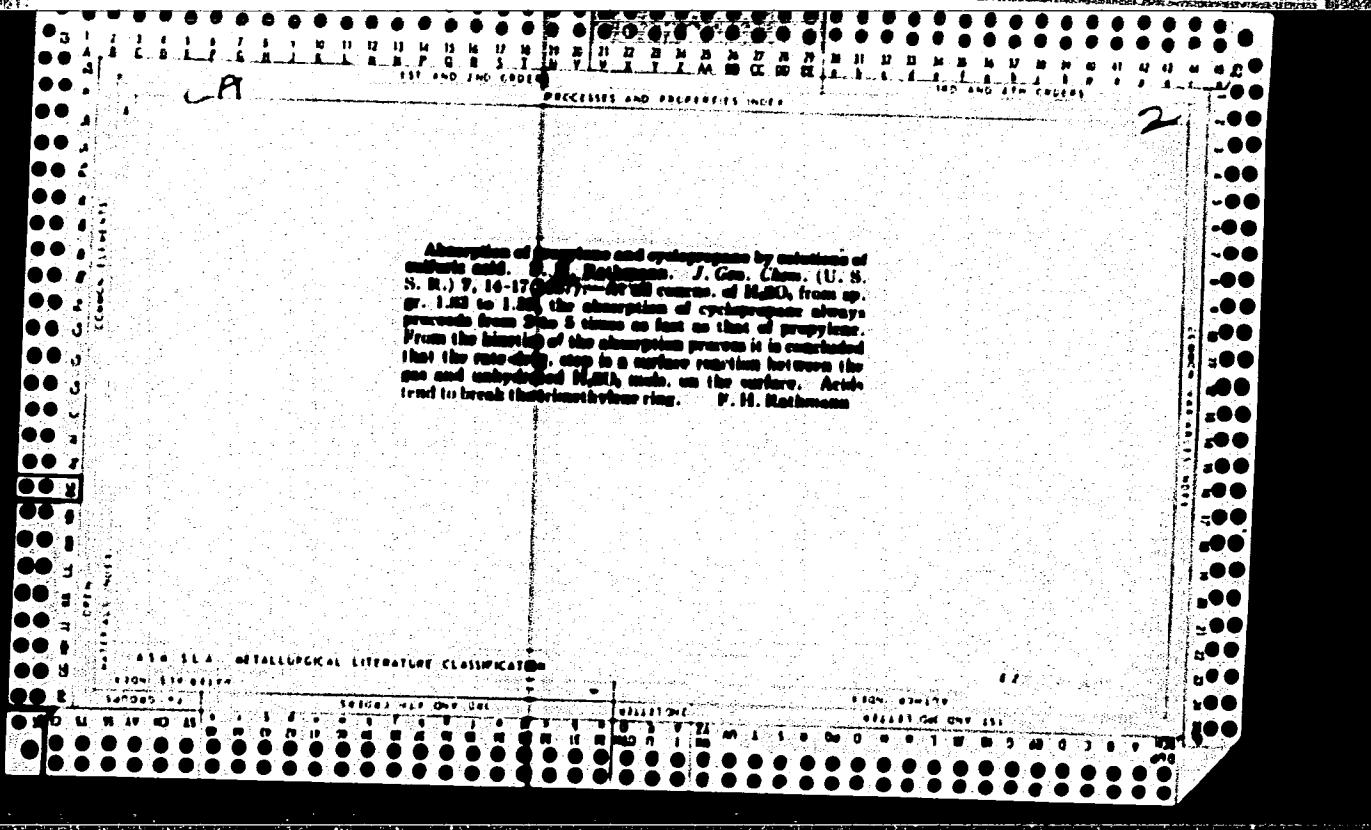
Rathling, F.  
"The most recent reinforced concrete lining supports. III. Technology of prestressed concrete constructions." ( To be contd.) p. 247.  
(Szivárcsitsi Liner. Vol. 3, no. 5, May 1953, Budapest.)

30: Monthly List of East European Acquisitions, Vol. ", No. 2, Library of Congress, September 1953. Uncl.

PARTHÉN, F.

"Recently developed reinforced concrete mining supports." II. "Prestressed concrete construction, a new element of mining supports." p. 169. (V.P.) "Greetings to our 1953 Kossuth Prize winners." p. 184. (BANYASZATI LAPOK, Vol. 8, no. 4, Apr. 1953. Budapest.)

SJ: Monthly List of East European Accessions, Vol. 2, #6, Library of Congress  
August, 1953, Uncl.



21  
Systems: water-m-cresol-benzene and water-m-cresol-toluene. Determination of water in m-cresol. P. H. Rathmann. *J. Applied Chem.* (U. S. S. R.) 10, 1233 (in English 1236) (1957).--Ternary diagrams for the systems are given. For detn. of H<sub>2</sub>O in m-MeC<sub>6</sub>H<sub>5</sub>OH the best method is addn. of 0.16 g. of water to 5 cc. sample followed by addn. (from a buret) of C<sub>6</sub>H<sub>5</sub>OH until a permanent clouding occurs. The water content (x) in this case is calcd. by the formula  $y = (18 \cdot x + 21) / 0.03 x - 0.025 x^2 - 0.00043 x^3 = 3.2\%$  of water added, where x is the vol. of C<sub>6</sub>H<sub>5</sub>OH added. Thirteen references.  
A. A. Balagury

ASG 514 METALLURGICAL LITERATURE CLASSIFICATION

131 AND TWO OTHERS

PROBLEMS AND PROGRESS

**VIII. Effect of the methoxyl group.** Preparation and properties of sodium, potassium and silver phenoxides of halogen containing  $\rho$ -methoxyphenols. J. W. H. Hunter and F.-H. Barthmann. *J. Ger. Chem. (U. S. S. R.)* 7, 2292-8 (1937); cf. *C. A.* 30, 2639, 2794.—Owing to rapid oxidation  $\rho$ -Me<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH cannot be isolated. The Na salt of 2,5-dibromo-4-methoxyphenol is too unstable to exist and the Ag salt readily loses free Ag. The Na, K and Ag salts of 2,3,5,6-tetrabromo-4-methoxyphenol are stable and decompose thermally in the normal way to colored polymers. Thus,  $\rho$ -MeO causes instability in the mol. and Br atoms in the  $\omega$ -position increase stability.

**IX. Effect of the methoxyl group.** Effect of the  $\sigma$ -methoxyl group. *Jad.* 2230-6.—A heating on suspension of the Ag salt of the di-Me ether of tribromopyrogallol decomps. with formation of Ag. In boiling *Cafo* normal decomps. to AgI, Ag<sub>2</sub>O and an amorphous polymer occurs. In the mono-Me ether, decomps. to form Ag occurs rapidly. Although  $\sigma$ -MeO increases instability in the mol.,

this group itself is more firmly held to the ring than Br. **X. Effect of the methyl group.** Preparation and properties of the sodium and potassium phenoxides of some  $\rho$ - and  $\sigma$ -ethoxy- $\sigma$ -ethoxyphenols. *Jad.* 2230-6.—The Na and K salts of dibromo- and diiodo- $\sigma$ -ethoxy are stable, but those of  $\sigma$ -ethoxy derive. are rather unstable. The Na phenoxides are more stable than the K salts. In most phenols, stability decreases as the halogen substituent is changed from Cl to Br to I, but in  $\sigma$ -ethoxy, the reverse order holds. The  $\rho$ -Me group has a stabilizing effect. **XI. Effect of the methyl group.** Preparation and comparison of the properties of some silver phenoxides. *Jad.* 2230-6.—Comparison of a no. of Ag phenoxides confirms the theory of Terrey and Hunter (*C. A.* 30, 1410) that these compds. ppt. in a colored quinon form which changes to a white bromoanilid modification. The intensity of the color of halogenated phenoxides is in the order I > Br > Cl and  $\sigma$ -halogens act more strongly on the color than their  $\rho$ -isomers.  $\sigma$ -Me groups strongly increase the color. The more intense the color, the sooner the compd. becomes white, and the more unstable it is. H. M. Lester

## AS-11A METALLURGICAL LITERATURE CLASSIFICATION

147020	14	SEARCHED	SERIALIZED	INDEXED	FILED	SEARCHED	SERIALIZED	INDEXED	FILED
						1	2	3	4

SETINEK, K.; RATHOUSKY, B.

Apparatus for differential thermal analysis under pressure  
with gas passage through the examined substances. Coll Cz  
Chem 28 no.4:991-996 Ap '63.

1. Institut für theoretische Grundlagen der chemischen Technik,  
Tschechoslowakische Akademie der Wissenschaften, Prag.

SETÍNEK, K; RATHOUSKÝ, B.

Czechoslovakia

Institute of Theoretical Bases of Chemical Technique,  
Czechoslovak Academy of Science -- Prague - (for both)

Prague, Collection of Czechoslovak Chemical Communications,  
No 4, 1963, pp 991-996

"Apparatus for the Differential Thermoanalysis under  
Pressure and Pouring Gas through the Investigated  
Matter."

2

RATHOUJSKY, J.; KRUCHNA, O.; BAZANT, V.

Organosilicon compounds. Pt.38. Coll Cz.Chem 30 no.3;862-  
872 Mr '65.

1. Institut fur theoretische Grundlagen der chemischen Technik,  
Tschechoslovakische Akademie der Wissenschaften, Prague. Submitted  
June 30, 1964.

RATHOUSKY, Jiri; KRUCHNA, Oldrich; SETINEK, Karel; BAZANT, Vladimir;  
ŠILADI, J.

Practical problems of terephthalic acid isolation from the  
rearrangement product of potassium phthalate to potassium  
terephthalate. Chem prum 13 no.6:295-299 Je '63.

1. Ustav teoretickych zakladu chemicke techniky, Ceskoslovenska  
akademie ved, Praha (for all, except Siladi).
2. Spolek pro chemickou a hutni výrobu, Usti nad Labem (for  
Siladi).

RATHOUSKY, J.

"Silicones" by S.Fordham. Reviewed by J.Rathousky. Chem  
listy 58 no.11:1358-1359 N '64.

RATHOFER, J.

Drilling deep holes with pointed drills cooled by compressed air. p. 406

STROJIRENSKA VYROBA. (Ministerstvo tezkeho strojirenstvi, Ministerstvo presneho  
strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedelskych stroju)  
Praha, Czechoslovakia. Vol. 7, No. 9, Sept. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 12, Dec. 1959  
Uncl.

RATHONYI, Janos

Economy or technical development? Ipari energia 3 no. 3166  
Mr '62.

RATHONYI, Janos

Outdoor factory construction is cheaper and more modern; interesting  
technical innovations in the design of the Power Plant on the Danube.  
Musz clet 16 no.6:7 Mr '60. (EEAI 10:5)  
(Hungary--Steam power plants)

RATHOUSKY, J.; KRUCHNA, O.; BAZANT, V.

Organosilicon compounds. Pt. 36. Coll Gz chem 29 no.7:1633-  
1642 Jl '64.

I. Institut fur theoretische Grundlagen der chemischen Technik,  
Tschenchoslowakische Akademie der Wissenschaften, Prague.

KATHOUKY, Jiri; SLETIK, Karel; KROCHNA, Oldrich; BAZANT, Vladimir

Kinetics of the formation of terephthalic acid by the reaction of potassium hydrogen terephthalate with phthalic anhydride in aqueous medium. Chemia prum 14 no.5:225-229 My '64.

1. Institute of Theoretical Principles of Chemical Technology,  
Czechoslovak Academy of Sciences, Prague.

R&D LIBRARY

PHASE I BOOK EXPLOITATION

CZECH/3510

Bážant, Vladimír, Engineer, Doctor, Winner of State Prize, Václav Chvalovský, Engineer, Doctor, Winner of State Prize, Jíří Rathouský, Engineer, Doctor, Winner of State Prize, Miroslav Schätz, Engineer, Jan Starch, Engineer, Otakar Kolar, Engineer, Antonín Dyk, Engineer, and Petr Hix, Winner of State Prize.

Technické použití silikonu (Industrial Use of Silicones) Praha, Státní Nakladatelství Technické Literatury, 1959. 365 p. (Series: Makromolekulární látky, sv. 3) 1,400 copies printed.

Reviewer: Jíří Čermák, Engineer; Tech. Ed.: František Trnka; Resp. Ed.: Vladimír Spáčil, Engineer.

PURPOSE: This book is intended mainly for technicians who use silicones and for chemists doing research on the applications of silicones.

COVERAGE: The book is an introduction to silicone chemistry. Applications of silicones in the rubber industry, in the electrical and machine-manufacturing industries as surface finishes, and in various fields of technology as

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Industrial Use of Silicones

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hydraulic fluids, oils, lubricants and pastes are treated extensively and the role of silicones in medicine, pharmaceuticals and cosmetics production is discussed. The use of silicone resins in the plastics industry is also treated. No personalities are mentioned. References are given at the end of each chapter.

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J.Starch, Engineer)

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Appendices. Tables of Commercially Produced Silicone Products

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AVAILABLE: Library of Congress (TP248.S8B35)

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RATHOVSKY, J.

PHASE I BOOK EXPLOITATION SOV/5851

Bažant, V., V. Chvalovský, and J. Rathouský (State Prize Winners)

Silikony: kremniyorganicheskiye soyedineniya, ikh polucheniye,  
svoystva i primeneniye (Silicons: Organosilicon Compounds,  
Their Production, Properties, and Application) Moscow, Gos.  
khimizdat, 1960. 709 p. Errata slip inserted. 4000 copies  
printed.

Translated from the Czech by Yu. I. Vaynshteyn and V. I. Stanko.  
Ed.: V. I. Pakhomov; Tech. Ed.: V. P. Zazul'skaya.

PURPOSE : This book is intended for scientists, engineers, and  
technicians in industries which produce or utilize silicon  
materials.

COVERAGE: The monograph is a Russian-language translation from  
the original Czech which reviews the nomenclature of organo-  
silicon compounds, their properties, methods of producing vari-  
ous classes of organosilicon compounds and polymeric materials

Card 1/5 2

41392

Z/009/62/000/009/002/004  
E112/E435

12.07.0

AUTHORS: Rathouský, Jiří, Kruchňa, Oldřich

TITLE: Preparation of methylsilicone resins

PERIODICAL: Chemický průmysl, no. 9, 1962, 513-517

TEXT: The industrial preparation of silicone resins consists of a controlled hydrolysis of methylchlorosilanes. In the case of methyltrichlorosilane, cross-linked insoluble products with limited technological applications are obtained. Polymers with improved properties (linear, and soluble in organic solvents) can be prepared if the ratio  $\text{CH}_3 : \text{Si} > 1$ , which may be achieved by hydrolysing a mixture of methyltrichlorosilane with dimethyl-dichlorosilane. Hydrolysis is carried out by the action of water on a toluene solution of the chlorosilanes. Experiments to prevent the formation of gels during hydrolysis are described. Best results were achieved with butanol which displayed the additional advantage of preventing the formation of emulsions. The effects of temperature, butanol, water and toluene concentrations on the rate of hydrolysis and gel-formation were studied. Required minimum quantities of butanol for compositions of varying  $\text{CH}_3 : \text{Si}$  ratios, expressed in % of

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Z/009/62/000/009/002/004  
Preparation of methylsilicone resins E112/E435

methylchlorosilanes, were:  $\text{CH}_3 : \text{Si} = 1 - 45\%$  butanol;  $\text{CH}_3 : \text{Si} = 1.2 - 35\%$  butanol;  $\text{CH}_3 : \text{Si} = 1.4 - 20\%$  butanol;  $\text{CH}_3 : \text{Si} = 1.6 - 5\%$  butanol. Temperature effects on gel formation were insignificant and so was the concentration of toluene. Only when the concentration of the latter was reduced to 1/4 of the original amount did gel formation occur. The reduction of toluene concentration can be counteracted by increasing the concentration of butanol. As the hardening temperatures of silicone resins with a  $\text{CH}_3 : \text{Si}$  ratio above 1.3 are comparatively high, precondensation is indicated. An alcoholic solution of KOH was investigated and the effects of Si:K and  $\text{CH}_3 : \text{Si}$  ratios on hardening times were determined. The pot-life of different types of methylsilicone resins was followed for a period of 2 to 8 months and it was established that compositions which were not precondensed were stable for that period of time. For the precondensed types, the stability was determined by the degree of precondensation. A silicone resin with a ratio  $\text{CH}_3 : \text{Si} = 1$  prepared by the addition of butanol ( $\text{C}_4\text{H}_9\text{OH} : \text{Si} = 1.5$ ) gave, on hardening, a tough and strong film, characterized by good adhesion to aluminium and good thermal stability. It proved also Card 2/3

Preparation of methylsilicone resins Z/009/62/000/009/002/004  
E112/E435

an excellent hydrophobic agent for building materials, ceramics, paper and textiles. Its properties were superior to methyl-silicone resins with higher CH<sub>3</sub>:Si ratios but prepared without butanol. There are 4 figures and 2 tables.

ASSOCIATION: Ústav teoretických základů chemické techniky  
CSAV, Praha (Institute for Theoretical Chemical  
Technology ČSAV, Prague) f

SUBMITTED: May 17, 1962

Card 3/3

RATHOUSKY, J.; KRUCHNA, O.; BAZANT, V.

Silicon organic compounds. XII. Reaction of alkylchlorosilane with arylchlorosilane on solid acid catalysts. Coll Cz Chem 25 no.7: 1807-1814 Jl '60. (EEAI 10:9)

1. Institut fur theoretische Grundlagen der chemischen Technik, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Silicon) (Organic compounds) (Chlorosilane)  
(Alkyl groups) (Aryl groups) (Catalysts)

RATHOUŠKY, J.

Distr: 4E3d/4E2c(j)

✓ Hydrophobization of glass by using methyl silicone resins,  
methyl chlorosilanes, and methyl phenyl silicone oils.  
Jiří Rathouský and Václav Chvalovský (Chem. ist. CSAV,  
Prague). Chem. průmysl 9, 657-61(1959).—The influence  
has been investigated of the concen., curing temp., curing  
catalyst, and of the ratio Me:Si (Ph;Si, resp.) on the hydro-  
phobization of Na-Ca glass by Me silicone resins (I), blends  
of Me chlorosilanes (II) (Me:Si = 1.00-1.87), and Me Ph  
silicone oils (III) (Ph:Si = 0.2 and 0.8). Simultaneously  
the resistance has been estd. of the hydrophobic films against  
benzene (IV), 1% aq. solns. of NaOH, NaCl, and HCl, and  
towards the action of elevated temp. The prepn. is de-  
scribed of I with Me:Si = 1:3, 1:4, and 1:5. Carefully  
cleaned glass plates have been hydrophobized by solns. of  
0.2-2% I with and without 3% Al(O-iso-Pr)<sub>3</sub> in IV (0.4-  
3.0% II in IV, and 1.5% III in toluene, resp.), the film ob-  
tained being cured at 20-170° for 2 hrs. (20-140° for 2 hrs.,  
and 260-340° for 12 hrs., resp.). The angle of contact ( $\alpha$ )  
has been estd. of water with the hydrophobized glass sur-  
face and also after the action of IV, 1% NaOH, NaCl, and  
HCl at 50° for 2 hrs., and of elevated temp. (300° for 12  
hrs.). Curing increases  $\alpha$  by 2-3°, the curing temp. being  
of little importance. The hydrophobizing effect and the re-  
sistance of the hydrophobized surface against IV, 1% NaOH,  
NaCl, and HCl decreases in the order II > I > III, only the  
resistance towards elevated temp. being higher for III than  
for I.

SJ

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Z/009/60/000/08/029/036

E112/E153

AUTHORS: Václav Chvalovský and Jiří Rathouský

TITLE: The Hydrophobic Properties of Glass<sup>v</sup>Treated with  
Methyl Silicones and Methyl Hydrosilicones

PERIODICAL: Chemický Průmysl, 1960, No 8, pp 433-437

ABSTRACT: A hydrophobic treatment of glass and ceramics which has to withstand high temperatures<sup>v</sup> is provided by methyl-silicones. Their hardening on the glass surfaces is accomplished by partial oxidation of the methyl groups at temperatures of 260 to 320 °C. For the hydrophobization of glass surfaces which do not have to withstand the same amount of heat methylhydrosilicones are used industrially. Hardening of the films takes place at 100 to 200 °C by oxidation of the hydrogen atoms linked directly to silicium. Information in the literature about degree of hydrophobization as a function of molecular weight of the methyl- or methylhydrosilicones and their resistance to chemical attack is incomplete. Furthermore, no comparison is given between an application of these agents from organic solvents or aqueous emulsions. The object of the present paper is to fill this gap. Preparation of methyl- and methylhydrosilicones used is as follows.

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E112/E153

The Hydrophobic Properties of Glass Treated with Methyl Silicones  
and Methyl Hydrosilicones

I. Methylsilicones - by linear polymerization of octamethylcyclotetrasiloxane with hexamethyldisiloxane in presence of 3% sulphuric acid. II. Methylhydrosilicones - compound having a ratio  $\text{CH}_3/\text{H} = 3.68, 2.95, 2.31$  and 1.55 by reacting a mixture of dimethylsiloxane, methylhydrosiloxanes and hexamethyldisiloxane in presence of 6% sulphuric acid for 3 hours. Methylhydrosiloxanes with a ratio  $\text{CH}_3/\text{H} = 1$  were prepared by using a mixture of cyclic methylhydrosiloxanes, obtained by hydrolysis of methyldichlorosilane ( $\text{CH}_3\text{SiHCl}_2$ ). Aqueous emulsions of both types of compounds were prepared by using the following emulsifiers: triethanolamine oleate, triethanolamine-ricino sulphonate and dimethylcetylbenzyl-ammoniumchloride. The following stability tests were carried out: Resistance of films to high temperatures. Treated glass surfaces were exposed for 2 hours at 250 °C or 12 hours at 250 °C or 12 hours at 300 °C. Resistance to chemical attack was assessed by exposing treated glass surfaces to the action of NaOH, NaCl and HCl for specified times and at specified temperatures. Tests also included stabilities to organic solvents. All assessments are based on the contact-angle method (angle of wetting with water). The effect of methylsilicones was independent of viscosities within

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E112/E153

The Hydrophobic Properties of Glass Treated with Methyl Silicones  
and Methyl Hydrosilicones

a range of 50-1000 c St. It was further unaffected by change of concentration within a range of 0.5-2.0%. Methods of hardening greatly affect the hydrophobing effect, without, however, influencing stability of the films. The hydrophobing effects of the aqueous emulsions were generally found to be better than those of solvent application. Type of emulsifier used did not influence results. Resistance of the films to high temperatures, benzene and aqueous solutions of chemicals with the exception of alkalis was found to be very good. (Initial stability of films to dilute alkalis was found to be adequate. However, contact angles gradually decrease and it is, therefore, not possible to store alkalis in glass which had been hydrophobed with methylsilicones.) The hydrophobing action of solutions or emulsions of methylhydrosilicones and the thermal stabilities of their films decrease as the ratio CH<sub>3</sub>/H decreases. They are generally lower than those obtained from the methylsilicones. The hydrophobing effect is again independent

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The Hydrophobic Properties of Glass Treated with Methyl Silicones  
and Methyl Hydrosilicones

of concentration within a range of 0.5-2.0%. Aqueous emulsions  
are also more efficient than application from organic solvents  
(toluene). Resistance to high temperatures and dilute aqueous  
solutions of chemicals is, with the exception of alkalis,  
adequate. The films show also good resistance to benzene.  
There are 1 figure, 7 tables and 5 references, of which 3 are  
English and 2 Czech.

X

ASSOCIATION: Chemicky ústav ČSAV, Praha  
(Chemical Institute, Czechoslovak Academy of Sciences,  
Prague)

SUBMITTED: August 12, 1959

Card 4/4

RATHOVSKY, J.

"Substances for heat transmission in industrial enterprises." p. 774.

STROJIRENSTVI. (MINISTERSTVO TEZKEMO STROJIRENSTVI, MINISTERSTVO PRESNEHO STROJIRENSTVI A MINISTERSTVO AUTOMOBILOVEHO PRUMYSLU A ZEMEDELSKYCH STROJU.)  
Praha, Czechoslovakia, Vol. 5, no. 10, Oct. 1955.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.  
Uncl.

20096000/03/03/2321  
2142/335

AUTHOR: None Given

TITLE: New Books

PERIODICAL: Časopis římský, 1960, Nr. 2, pp 36-40

ABSTRACT: The following books are reviewed:  
"Examples of Chemical and Engineering Calculations I/1"  
by A. Pilař, M. Rata, Z. Rošek, Z. Peček and  
L. Horovský; Published by  
Technické nakladatelství Státního výzkumu  
and J. Hněhoušek; Printed by  
SNTL, Prague, 1959; reviewed by J. Žofín, Research  
Institute for Inorganic and Organic Chemistry.

"Ukrainská akademie věd. Na polisperfumární industry" by  
A. Berežni, Published by  
SNTL, Prague, 1959; reviewed by S. Lankas.  
"Survey of Organic Chemistry (Résumé de Chimie  
Organique)" by V. Grignard; Published by  
Masson & Cie, Paris, 1950; reviewed by V. Veselý.

"Macromolecular Substances" ("Hochmolekulare" - Herstellung,  
Eigenschaften und Anwendung als Kunststoffe") by  
I. Minnaar; reviewed by Z. Zamanič, Research Institute  
for Macromolecular Chemistry.  
"Chemical Diary for 1960" published by  
SNTL, Prague, 1959

Card 1/2

Card 2/2

RATHOUŠKÝ, J.

RATHOUŠKÝ, J. Germanium and its use in technology. p. 121.

Vol. 1, no. 4 Apr. 1956

NOVA TECHNIKA

TECHNOLOGY

Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

Rathousky, J.

Rathousky, J. Electric equipment in a prefabricated house. p. 92.

Vol. 5, no. 2, Feb. 1957.

POZEMNI STAVBY  
TECHNOLOGY  
Czechoslovakia

So. East European Accessions, Vol. 6, No. 5, May 1957

RATHOUSKY, J.; BAZANT, V.; SORM, F.

Silicon organic compounds. III. Comparison of reactivity of alkoxy silanes by the use  
of Grignard reagents. In German. p. 72

Vol. 20, no. 1, Feb. 1955  
SBORNÍK ČESkosLOVATSKÝKH KHIMICHESKÝH RABOT  
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

MATHOUZY, J.

MATHOUZY, J.; BAZANT, V.; BORM, F. Silicon organic compounds. III. Comparison of the reactivity of various alkoxy silanes toward the Grignard reagent. p. 1197. *REVIEW OF PHYSICO-MATHEMATICAL CHEMISTRY*. Praha. Vol. 48, no. 2, Aug. 1954.

S0: Monthly List of East European Publications, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.

RATHOUSKY, J.

Silicons, p. 939.  
STROJIRENSTVI, Prague, Vol. 4, no. 12, Dec. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,  
June 1956, Uncl.

RATHOUSKY. J.

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Bazant, V., Chvalovsky, V., and Rathousky, J.: Silicones. Prague:  
SNTL. 1954. 312 pp. Kčs. 42. Reviewed in Chem. Listy 49, 1414(1955).

Bazant, V., Chvalovsky, V., and Rathousky, J.: Silikony.  
Prague: SNTL. 1954. 312 pp. Kčs. 42. Reviewed in Chem. Listy 49, 1414(1955). (3)

RATHOUKY, J.

Some problems of the transportation of materials in the chemical industry.

p. 21 (Czechoslovak Heavy Industry) Vol. 9, No. 9, 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. Vol. 7, no. 1, Jan. 1958

KATHOUSKY  
CZECH

10045\* Organosilicium Compounds. Organosiliciumverbindungen. III. Comparison of the Reactivities of the Alkoxysilanes With the Grignard Reagent. Vergleich der Reaktivität der Alkoxysilane mit dem Grignardreagens. (German)

J. Rathousky, V. Bečvář, and F. Sorm. Collection of Czechoslovak Chemical Communications, v. 20, no. 1, Feb. 1955, p.

72-81.

Reactivity of various alkoxy-groups bound to the Si during a reaction with methylmagnesium chloride. Intermediate products described. Graphs, tables, 20 refs.

AKC  
K. C. G.

RATHOUŠEK  
5

CZECH ②

Organosilicon compounds. III. Comparison of the reactivities of alkoxyallanes toward the Grignard reagent, Jiří Rathouský, Vladimír Bažant and František Šorm (Institute of Chemistry, Prague), *Chem. Listy* 48, 1197-1204 (1954); *Collection Czechoslov. Chem. Commun.* 20, 73-81 (1955) (in Russian); cf. *C.A.* 49, 161a. —The reactivity of alkoxy groups bound to Si toward  $\text{MeMgCl}$  decreases with increasing mol. wt. and with branching:  $\text{EtO} > \text{PrO} > \text{BuO} > \text{iso-BuO} > \text{iso-PrO} > \text{sec-BuO} > \text{tert-BuO}$ . The

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preparation of some intermediates is given. Adding 280.6 g.  $\text{PbO}$  by 1399.4 g.  $\text{SiCl}_4$  during 5 hrs., stirring the mixture 2 more hrs., distilling the product *in vacuo*, and fractionating the distillate on a 20-plate column gave 777.6 g.  $\text{ClSiO}_{1.5}$ , b. 125.5°. Similar treatment of 887 g.  $\text{MgSiCl}_2$  with 890.5 g. above  $\text{PbO}$  gave 825 g.  $\text{MeSiClO}_{1.5}$ , b. 75.5°. In the same way were prepared  $\text{Bu}_3\text{O}$  derivatives:  $\text{ClSiOBu}_3$ , b. 87.92°;  $\text{ClSiOBu}_2$ , b. 141°;  $\text{MeSiClOBu}_2$ , b. 95.9°;  $\text{MeSiCl}_2$  (290 g.), 7.5%; and  $\text{MeSiClOBu}_1$ , b. 120°, yielded in the usual way 313.8 g. and  $\text{Bu}_3\text{O}$  (261 g.) yielded in the usual way 313.8 g. and  $\text{MeSiOBu}_2$ , b. 121°. Yields (%) b.p. and  $n_D^{20}$  of  $\text{MeSiOR}_2$  are listed:  $\text{Et}_2\text{O}$ , 93.2, 140.5°,  $n_D^{20}$  1.3821;  $\text{Pr}_2\text{O}$ , 90.0, 101°,  $n_D^{20}$  1.39778;  $\text{Bu}_2\text{O}$ , 75.8, 101.2°,  $n_D^{20}$  1.3910;  $\text{Bu}_3\text{O}$ , 81.6, b. 120°,  $n_D^{20}$  1.4063;  $\text{Bu}_2\text{Bu}$ , 78.6, 214-10°,  $n_D^{20}$  1.4016;  $\text{tert-Bu}_2$ , 67.3, 213-15°,  $n_D^{20}$  1.4050; and  $\text{tert-Bu}_3\text{O}$ , 59.3, 192-9°,  $n_D^{20}$  1.2372. Treating 132.2 g.  $\text{MeSi(OEt)}_2$  with 365 ml. ether solution of  $\text{MeMgCl}$  (1.26 mole), stirring the mixture 18 hrs., hydrolyzing the product with 1000 ml. dil. HCl (1:1), distilling  $\text{Et}_2\text{O}$  from the ether layer, finishing the hydrolysis and condensation of the residue by refluxing 3 hrs. with 150 ml. conc. HCl, washing the product with  $\text{H}_2\text{O}$ , and distilling, yielded 28 g.  $\text{MeSiOSiMe}_2$ , b. 98-101°. Similar reaction applied to chloromethoxysilanes yielded linear polymers. Adding 635 ml.  $\text{Et}_2\text{O}$  containing 1.51 mole  $\text{MeMgCl}$  to 171.6 g.  $(\text{BuO})\text{SiCl}_2$  dissolved in 1930 ml.  $\text{Et}_2\text{O}$ , stirring the mixture 2 hrs., hydrolyzing it 45 min. with 400 ml. HCl (1:2); removing the ether, finishing the hydrolysis and condensation by refluxing the mixture 7 hrs. with 50 ml. HCl, distilling of  $\text{Et}_2\text{O}$ , and treating the residue (10 g.) with 5 vol.  $70\%$  concd.  $\text{H}_2\text{SO}_4$  gave dimethylhydroxysilane, kinematic viscosity 11.801 centidose at 20.5°.  $\text{MeSi}(\text{kinematic viscosity } 11.801 \text{ centidose at } 20.5^\circ) \text{ SiMe}_2$  ( $\text{O}-\text{i-Bu}_2$ ) was found to form an ester with  $\text{i-Bu}_3\text{OCl}$ , b. 89-90°,  $n_D^{20}$  1.5533, cont'd.  $\text{MeSi}(\text{kinematic viscosity } 11.801 \text{ centidose at } 20.5^\circ) \text{ SiMe}_2$  ( $\text{O}-\text{i-Bu}_2$ ) was found to form an ester with  $\text{i-Bu}_3\text{OCl}$ , b. 89-90°,  $n_D^{20}$  1.5533, cont'd. M. Hudlicky.

PATHOUSKY, J.

**Organosilicon compounds. II. Preparation of methyl chloroxylanes and many substituted chloroxylanes from chlorotrichloromethane and silanes.** J.H. Bartholet, Václav Chvalovský, and Vladimír Lisy. *J. Chem. Czech.*, Prague, Czech., 47, 1387-138 (1953); *C.A.*, 48, 10422. — Abs. EtOH dropped during 4 hrs. into SiCl<sub>4</sub> under reflux yielded ClSiOEt<sub>3</sub> (I), b. 103-5°, and Cl<sub>2</sub>SiOEt<sub>2</sub> (II), b. 132-3°. The chloroxylanes dried with 500 ml. Et<sub>2</sub>O were treated under stirring and ice-cooling with MeMgCl to give the corresponding methylchloroxylanes. Cl atoms react preferentially to OEt groups. From II were obtained Me<sub>2</sub>Si(OEt)<sub>3</sub> (IV) and Me<sub>2</sub>SiOEt<sub>2</sub> (III) in varying proportions depending on the molar ratio of chlorotrichloromethane-MeMgCl. Total yields ranged from 38.3 to 68.4% (the yield of III from 5.1-59.0% of IV from 8.8-37.4%), when 5-50% molar excess of MeMgCl was used. From I and MeMgCl (molar ratio 1:1) was obtained III in 61-67.8%. The methylchloroxylanes were isolated either by repeated distn. with Et<sub>2</sub>O or by dilution. Into 65 g. I dried with 11. Et<sub>2</sub>O was dropped during 3 hrs. 2795 ml. ether soln. of MeMgCl (6.16 mol.) in the mixt. stirred 3 hrs., hydrolyzed with 2500 ml. HCl (1:4), the Et<sub>2</sub>O distil. off, the residue boiled with half its vol. concd. HCl, washed with Et<sub>2</sub>O, dried, and distd. to give 142.4 g. (57.0%) (Me<sub>2</sub>Si)O (V), b. 98-101°. Treating a mixt. of I and II dried with 200 ml. Et<sub>2</sub>O, during 4 hrs., with an Et<sub>2</sub>O soln. of MeMgCl, hydrolyzing the mixt. during 1.5 hrs. with 800 ml. dil. HCl (1:4), evap., the Et<sub>2</sub>O, and shaking the oil 30 hrs. with 4% H<sub>2</sub>SO<sub>4</sub> gave a practically quantitative yield of silicone oil, 1 (35 g.), and 83.3 g. Si(OEt)<sub>2</sub> dried with 400 ml. Et<sub>2</sub>O treated during 4 hrs. with 2820 ml. Et<sub>2</sub>O, conq. 0.3 mole MeMgCl, stirred 5 hrs., shaken 1.5 hrs. with 300 ml. HCl (1:4), the Et<sub>2</sub>O layer washed with H<sub>2</sub>O, the Et<sub>2</sub>O evap'd., and the product shaken 30 hrs. with 4% H<sub>2</sub>SO<sub>4</sub>, gave, after distn., 46 g. V, b. 99-100.5°, and 78.6 g. (59%) (Me<sub>2</sub>SiO)Si. b. 217-18.5° d<sub>25</sub> 0.879, n<sub>D</sub> 1.3871. M. Hudlický

Preparation

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After intradermal inoculation there were fewer severe local reactions, otherwise the number of general and mild local reactions was approximately the same, irrespective of whether it was administered by the subcutaneous or intradermal route. There were neither significant differences in the rise of antibodies. Morbidity due to influenza and other catarrhs of the upper respiratory passages was smaller in the intradermally than in the subcutaneously inoculated subjects.

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